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ABSTRACT

This volume, the first of three produced by a study group of experts from Australia, India, Indonesia, Maldives, New Zealand, Pakistan, Philippines, Sri Lanka, and Thailand, reviews their experiences in developing distance learning materials. Each country's experience is discussed in the context of problems it faced with special reference to materials relevant to teacher education. Problems and issues related to the specific educational and general developmental concerns of the different countries are also explored. A synopsis of possible national follow-up activities is presented for five areas: training; production and preparation of materials; dissemination of materials; extension; and research. Suggestions for further distance learning activities at the regional level relate to improvement of distance educators' access to regional training opportunities; examples of distance learning materials produced within the region; and a specialist association for distance educators. Appendices include an agenda, a list of participants, a list of working documents, and the keynote address. (LMM)

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ASIAN PROGRAMME OF EDUCATIONAL INNOVATION FOR DEVELOPMENT **APEID**

ED240989

DISTANCE LEARNING FOR TEACHER EDUCATION

Report of a Technical Working Group Meeting, Islamabad, Pakistan, 4-16 November 1981

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Volume I: Current status, programmes and practices

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The APEID Technical Working Group Meeting
on Distance Learning Materials
for Pre-service and In-service Teacher Education

was jointly organized by

Allam Iqbal Open University, Islamabad

and

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TABLE OF CONTENTS

		Page
Preface		i
Introduction:	The Experience of the Technical Working Group	iii
Chapter One:	Experiences of distance learning materials in participating countries	1
Chapter Two.	National follow-up activities	23
Chapter three:	Suggestions on distance learning	31

Annexes

Annex I:	Agenda	33
Annex II:	List of participants	34
Annex III:	List of documents	36
Annex IV:	Address by the Minister of Education, Pakistan	38

PREFACE

In accordance with the work plan of the Asian Programme of Educational Innovation for Development (APEID) for 1981, a study group of experts from Asia and the Pacific was convened to an APEID Technical Working Group Meeting on Distance Learning Materials for Pre-service and In-service Teacher Education from 4 to 16 November, 1981, at the Allama Iqbal Open University, Islamabad, Pakistan.

The objectives of the Technical Working Group Meeting were to:

1. Review and examine instructional materials used in distance learning;
2. Select and improve some materials relevant to core curriculum of teacher education;
3. Develop new materials for pre-service and in-service education; and
4. Develop a handbook on preparation, selection, use and renewal of distance learning materials.

Participants of the Technical Working Group were from Australia, India, Indonesia, Maldives, New Zealand, Pakistan, Philippines, Sri Lanka and Thailand.

The Technical Working Group produced three sets of papers:

1. Accounts of their experience in distance learning materials from the participating countries; suggestions for national follow-up activities believed to be the logical action steps that would benefit the participating countries; and suggestions on further distance learning activities at the regional level;
2. Guidelines on structures and strategies in organisations and on processes of materials development, each with checklists; and
3. A volume of selected exemplar materials, introduced by the participants who presented them, together with critical comments by the Group. The exemplar materials have been revised in accordance with the Groups comments.

In the third volume mentioned above, the exemplar materials are classified into five categories, namely:

1. Correspondence course materials;
2. Self-learning modules;
3. Programmed texts;
4. Radio; and
5. Television programmes.

It is hoped that both the second and third volumes of Guidelines and Exemplar Materials will be helpful as reference materials not only for participating countries but any other country with comparable aspirations in distance learning related to the core curriculum of Pre-service and In-service Teacher Education in Asia and the Pacific.

The contributions of the participating countries who provided exemplar materials for this handbook are acknowledged with gratitude. Special thanks are due to the Allama Iqbal Open University for providing the venue and supportive staff which made possible a productive working climate for the meeting.

Introduction: The Experience of the Technical Working Group

An important outcome of any meeting of representatives from several countries of Asia and the Pacific is the quality of the experience of their days together. In a Technical Working Group (TWG) where a small number of specialists meet for specific purposes the experience may be intense and long-lasting.

Perhaps because our work required careful attention to processes for the establishment of new systems and structures and for the production of learning materials, the participants in the TWG on Distance Learning Materials in Teacher Education will look back on their experience as a 'process' itself. Its successive phases can be identified. Our work obliged us:

- to explain, soon after arrival, our own experience and that of our countries in distance learning for teacher education;
- to submit to and offer critical analyses of materials which were the common stock for the workshop;
- to join small teams to reshape our own teaching materials and those of other team members;
- to co-operate in larger teams in order to envisage the diversity of national situations where guidelines for distance learning situations would fit, and to imagine the variety of student circumstances and institutional resources for which study materials might be produced.

Some results of these joint activities appear in the form of revised distance learning materials, as guidelines and checklists, and as statements of hope and intention for follow-up action at the national and regional level. Less explicit are the elements of personal experience of the participants. Those elements this section tries to record.

The collective experience of distance learning ranged more widely than participants might have imagined. This was illustrated at once by the earliest materials to be presented: first came some correspondence material from New Zealand that had been revised annually since its introduction 21 years ago; next, and in sharp contrast, came a draft of the very first material that is to become the Maldives first venture into distance learning; the materials that followed came from systems varying in vintage from a dozen years to a few months of operation. The clients for our courses, all teachers, extend from untrained primary teachers with limited school background, through teachers in need of new skills and knowledge for their classroom teaching, onwards to post-graduates employed but not yet trained in teaching, thence to intending educational planners taking masters degrees. Many of these teachers are scattered in distant outposts, in barely accessible mountain villages or in sparsely populated islands; but some live in teeming cities where schools are congested and teachers cannot be freed to attend classes for themselves. Some of our distance learning systems seek, through the teacher, to bring a common curriculum and language to a diversity of peoples and cultures; others encourage many cultures and many tongues to flourish side by side. In general terms, the participants were aware of such problems. They were confronted by them as specific contexts when they heard materials presented, commented on them and received comments on their own materials from different standpoints.

Our concepts of distance learning expanded as we recognized the many activities undertaken in its name. Some are concerned with policies to make education more accessible and 'open' in economical and rapid ways. Some involve the transfer to distance learning materials of instructional models that are now common, but perhaps not common enough, that have been developed for independent learning. In some respects we could see contrasts with 'traditional', 'formal', 'internal' teaching and learning; yet there was concern that the quality of education achieved should be commensurate with the best available by other means; and where the product of existing institutions is questionable, for its quality as well as to accessibility, then systematic distance learning deserves favourable companion with classes in the colleges. The participants argued freely about the role of media of various kinds, about in-built devices to elicit active, assessable, objective-fulfilling achievements from learners; and about their dependence on, or independence of, tutors intervening to support, but sometimes managing to subvert, independent learning. These issues, the participants confronted in terms of their own homeland experience and the different experiences of their colleagues.

Eventually some unity was needed: two sets of guidelines, one to help introduce new distance learning systems in teacher education, the other to ensure the effectiveness of their teaching, were to be drafted so that each would encompass the diversity that the participants had perceived. They were forged in a very few days of hard working and writing together, tempered meanwhile by endless discussion, revision, adaptation and modification.

The exhilaration and the exhaustion which the participants felt are no doubt reflected in the enthusiasm and the blemishes of their report. Their own small community became strong and seems likely to endure as friendships across national boundaries. They sensed that their efforts could add momentum to distance learning at a time when its benefits are becoming more clearly appreciated. They expect to be joined in their endeavours by many new colleagues in the Region and trust that their pioneering efforts will assist newcomers to achieve worthwhile results from distance learning for their teachers and others.

Chapter One

EXPERIENCES IN DISTANCE LEARNING MATERIALS OF PARTICIPATING COUNTRIES

This chapter briefly explains the experience of each participating country in distance learning. Each country's experience was discussed in the context of problems it faced with especial reference to distance learning materials relevant to the core curriculum of teacher education.

The socio-economic and cultural background of the area for which the materials for pre-service and in-service education for teachers are intended was considered. So too were the national goals of the country.

Analysis of each country experience explored problems and issues that many arise in the light of the specific educational and general developmental concerns of the different countries.

AUSTRALIA

Some aspects of distance education and learning in Australia

In Australia distance learning is organized at several levels in order to meet the needs of teachers.

Pre-service teacher education

Pre-service teacher education is offered at a distance by a number of Universities and Colleges of Advanced Education (CAE) within the tertiary education sector which also teach internal students. Such teacher education may be offered within some Universities and CAE's to graduates from other professional faculties or departments, or it may be offered, over a longer period, to student teachers undertaking tertiary studies for the first time.

In-service teacher education

In-service teacher education at a distance at Universities and CAE's takes the form of degree courses in education, post-graduate diplomas in various aspects of educational studies and post-graduate degree courses.

Teachers working in the Technical and Further Education (T.A.F.E.) sector are often trained during their first one or two years of employment as teachers, under an interm system. Such training is offered at a distance by some CAE's within the tertiary sector, a notable example being Newcastle CAE in New South Wales. A number of courses undertaken at a distance by Australian teachers are not offered to them exclusively but are open to all students with the necessary entry qualifications.

Such courses may be taken by teachers to improve their professional qualifications, to prepare for anticipated career opportunities in teaching, or in an attempt to up date their background knowledge in order to improve their teaching effectiveness.

Course development

In many instances courses offered to teachers at a distance have been adapted from courses developed largely for face to face use, thus requiring substantial alteration for use by the distance mode.

Increasing attention has been paid in recent years to problems which may arise from such an approach; however, funding has often been inadequate for sufficient course revision and development.

The level of skills and expertise of staff involved with distance learning courses for teachers has increased in recent years, however, general resource constraints have resulted in some continuing and persistent problems.

Distance learning materials

Australian courses offered at a distance for teachers have been highlighted by a heavy emphasis on print materials of varying qualities with some materials not providing for sufficient interaction with learners. Others, however, have been consistently improved in quality and have provided sound illustrations of many of the important principles of materials designed for distance learning.

Many materials still used, however, reflect the inadequate resources available for such development.

Contact and support services in distance learning

Other problems of distance learning in Australia relate to aspects such as lack of sufficient regular contact with, and support for, distance learners. Feedback provided to learners is often too slow and the flow of information between institutions and learners is often less than adequate, especially for the student experiencing difficulties.

Most Australian institutions involved in offering distance courses for teachers have tried hard to improve the quality of the services they offer, however, with public expenditure on education in Australia currently under such close strutiny, their task is difficult, and allocation of necessary additional resources unlikely

Training for teachers in distance learning methods

Some institutions now provide training for teachers in the methods of distance education. One such development has been at State College Hawthorn, Victoria in Australia.

A project, funded by a Technical and Further Education Special Initiative Grant in 1979, resulted in the development of materials for the training of part-time teachers especially in Victorian T.A.F.E. Colleges. The materials developed included an elective Study on Distance Education in order to meet the teaching needs of a very small number of mainly distance tutors. The same material provides a distance Education elective in

the Diploma of Technical Teaching offered by State College Hawthorn. The materials developed for these two electives were written by staff from Royal Melbourne Institute of Technology's School of External Studies. An exemplar in the volume accompanying this report illustrates this programme.

Training for staff, in distance methods, has been an interesting development at Riverina CAE in New South Wales, Darling Downs CAE in Queensland and elsewhere.

Communication satellite system

A potentially exciting development for distance learning in Australia relates to the government decision to introduce a communication satellite system.

A number of existing problems involved with distance learning might be largely alleviated if the satellite were to be sufficiently available to educational users.

The flow of information between institutions and learners and contact between them could be greatly improved as could the range of options available for instructional purposes.

Australia should be well placed to take advantage of the benefits from the communication satellite system and the use of associated technology. It is to be hoped, however, that the needs of commercial users will not be allowed to quickly exclude those of non-commercial users, such as those engaged in distance education activities for teachers.

INDIA

Overview

Distance learning in the form of correspondence education has been a part of Indian education scene 1962. The University of Delhi did some pioneering work in correspondence courses and continuing education. Now there are about 40 distance learning centres functioning in association with various universities of the country.

Some Boards of Secondary Education have also started programmes of correspondence education to prepare candidates for the High School Certificate Examination before they proceed to degree studies. Thus, through the efforts of some universities and Boards of Secondary Education a candidate can advance to a BA degree through distance learning materials. It should be kept in mind however, that correspondence education in India is largely confined to Social Sciences and Humanities, disciplines in which face-to-face contact is considered less necessary. In Science and Technology distance learning is not considered desirable in view of the practical requirements.

The expansion of education at all levels after independence, the explosion of aspirations, the desire for formal degrees as status symbols have all underlined the importance of distance education as an alternative strategy to the formal or internal system of education.

A strong impetus to teacher education through distance learning has been provided by the National Council of Educational Research and Training (NCERT), New Delhi through its constituent Regional Colleges of Education (RCE) located at Ajmer (for

Northern and Western India), Bhopal (from Central India), Bhubaneswar (Eastern India), and Mysore (Southern India). The four Regional Colleges of Education have been conducting in-service Summer School-cum-Correspondence Courses for inservice untrained teachers since 1966. Working secondary school teachers and elementary teacher educators, who did not have the benefit of regular training in a college of education, are prepared through distance learning materials for the university degree of Bachelor of Education (B.Ed.), which is the minimum qualification required for a teacher in India.

The details of this course, which is being completed by the NCERT are given below:

– general introduction of the course

Target Group: The Summer School-Cum-Correspondence has been started by NCERT's four Regional Colleges of Education to clear the back-log of untrained teachers working in the school system, both at the secondary and elementary levels. The course aims at preparing secondary school teachers and elementary teacher-educators for the UKAL university's BIED. degree to which the R.C.E., Bhubaneswar is affiliated.

It is estimated that about 40 per cent of teachers in the region served by this institution are not yet trained for their teaching jobs. The target group is highly motivated because the participants:

1. Already have a basic bachelor's (or master's) degree in science, social science or humanities;
2. Have sufficient school teaching experience to be able to profit from the course;
3. B.Ed. degrees offer prospects of confirmation in the service and higher pay; and
4. The teachers do not have to leave the school where they are working thus disrupting their lives and jobs.

– course design

The total duration of the course is about 14 months. This includes two summer sessions of two months (May and June) during each of which the candidates are required to stay on campus for an intensive instructional programme. The intervening period of ten months between the two consecutive summer vacations is utilised for:

1. Correspondence instruction;
2. Supervised field experiences; and
3. Practice teaching.

Immediately after completing the second summer session, the candidates sit for the final B.Ed. Examination conducted by the UTKAL University. The success or failure of the candidates are determined by this external examination of the University.

Instruction through correspondence

Correspondence lessons introduce the trainees to the study of general theory or principles of education, although some difficult areas are left for formal class-room instruction during the two summer sessions.

For instruction based on the correspondence material, each trainee is put under a correspondence 'guide', who sends to each trainee directions as to how a particular topic of the syllabus will be studied and prepared. Books and collateral reading are suggested and trainees are asked to prepare answers according to a definite schedule. The response sheets submitted are checked by the correspondence guides and returned to the trainees with remarks and suggestions for improvement.

Supervised practice teaching

Some elements of the course are not conducted through distance learning. The candidates is required to carry on his normal load of work in the school where employed during the 10-month period. He has to work under a local 'method master' so far as lesson planning, use of appropriate methods and acquisition of teaching skills are concerned. Consultation with method masters on a continuing basis is expected of every candidate enrolled in this course.

Field work

Each candidate is placed under a supervisers for conducting certain special field assignments. The practical assignments include:

1. Critical study of the syllabus of a school subject;
2. Action research relating to class room problems encountered by the candidate;
3. Conducting a small survey of any aspect of school or community;
4. Preparation of case study of a child;
5. Preparation of objective type tests; and
6. Preparation of a report on co-curricular Activities/Exhibitions etc.

These assignments help the candidate to apply his theoretical knowledge in order to attack practical problems faced by teachers in the Indian society.

INDONESIA

Background and setting

Indonesia is an archipelago consisting of about 13,000 islands covering approximately 500,000 square kilometers including the sea. As a result of this geographical setting, transportation and communication problems affect educational development.

The increase in the number of school-age children creates another educational problem. School buildings need to be built, but this also means that the number of teachers must be increased.

The country faces two critical problems: one is a shortage of teachers due to the increase in the number of school-age children; the second is the number of unqualified teachers in service.

To overcome the shortage of teachers, the government has established crash programs which is actually to create 'unqualified teachers'. In-service education, especially

for the unqualified teachers is a must. There should be regular and continuous in-service education for the teachers.

To overcome these problems the government has established mobile team units. However, as there are about 400.000 elementary school teachers in Indonesia, and transportation is difficult, not all of them can be upgraded by the mobile team units.

To overcome this problem, in-service education programs on a regular and continuous basis have been devised which are of three types, namely:

1. Type A: a refresher course aimed at updating the teachers on the development of knowledge and modern technology so that they can do their job well;
2. Type B: a programme to increase the academic ability of the teachers in order for them to meet the required formal qualifications; and
3. Type C: a set of courses designed to improve the ability of a teacher or administrator to meet the requirements for a specific post, for example, head-master.

Type A and C have been carried out in Indonesia, and Type B will be introduced in 1982. Type A is especially important for the elementary and secondary School teachers to prepare them to use the new curriculum and the new text books published by the government.

Design and development of elementary school teachers in-service distance education

The principal device used to carry out the in-service education of teachers is radio because it seems to be the most suitable and feasible medium at this stage of the country's development. The choice of the radio is guided by the following considerations:

1. It is educationally effective;
2. Its unit cost is comparatively low;
3. It has become part of the nation's culture; and
4. The message of its content can be spread far and wide in a relatively short time.

However as the radio is oral medium, it needs to be supplemented by printed materials.

Operation and activities

Educational radio broadcasting for the in-service education of elementary school teachers has been in operation since 1974, but the preparation began in 1971 and followed a sequence of 'preparatory', 'experimental' then dissemination stages;

– the preparatory stage (1971-1973)

The activities during this stage were: training of personnel; general design of the operation; research on audience, hardware and management; and supplying the facilities for production, transmission and utilization;

– the experimental stage (1974-1976) consisted of making the experimental design, establishing the curriculum, making the scripts and ancillary materials, producing the materials on tapes, distributing the materials, broadcasting, monitoring and evaluating;

– **the dissemination stage (1977 – present)** undertakes reserach development that could lead to wider implementation, the establishment of provisional offices fc. the utilization of the programmes, and supplying facilities for production, transmission, and utilisation.

Preparation of materials

Teams of subject-matter specialists, curriculum experts, instructional developers, media specialists, members of the mobile team units and representatives from the target clientele all help develop the curriculum and materials for the Radio Broadcasting System.

The radio scripts, the printed ancillarv materials, and the sound/slide programmes are written and composed according to the curriculum.

The activities of preparing the materials begin one year before the broadcast.

The organization of the system

The Educational Radio Broadcasting System is under the Centre of Technology and Communication of Education and Culture of the Ministry of Education and Culture in Indonesia (Refer to Figure I). This Centre is responsible for the planning, facilitating, distributing and evaluating the programmes.

The production of the programmes (from script writing up to recording the master tapes and the writing of ancillary materials) is the responsibility of the Educational Media Production Unit.

The programmes are transmitted twice a day everyday except Sunday, in the morning and in the afternoons.

The utilization of the programmes at the receiving end is under the responsibility of the provincial office of the Centre of Technology and Communication of Education and Culture.

The supervision of the utilisation of the programmes and the follow-up are done by the headmasters and supervisors.

The Problem

Problems that arise in this activity are, among others:

1. The scriptwriters are not full-timers so that there are sometimes scripts that are submitted late. This is to be overcome by scheduling dead-lines.
2. Although almost all the national radio transmitters are used to broadcast the programmes, there are still areas that cannot catch the programmes clearly.
3. The distribution of the printed materials to remote areas is sometimes late because of transportation and communication problems.
4. It is difficult to supervise the teachers at remote areas.

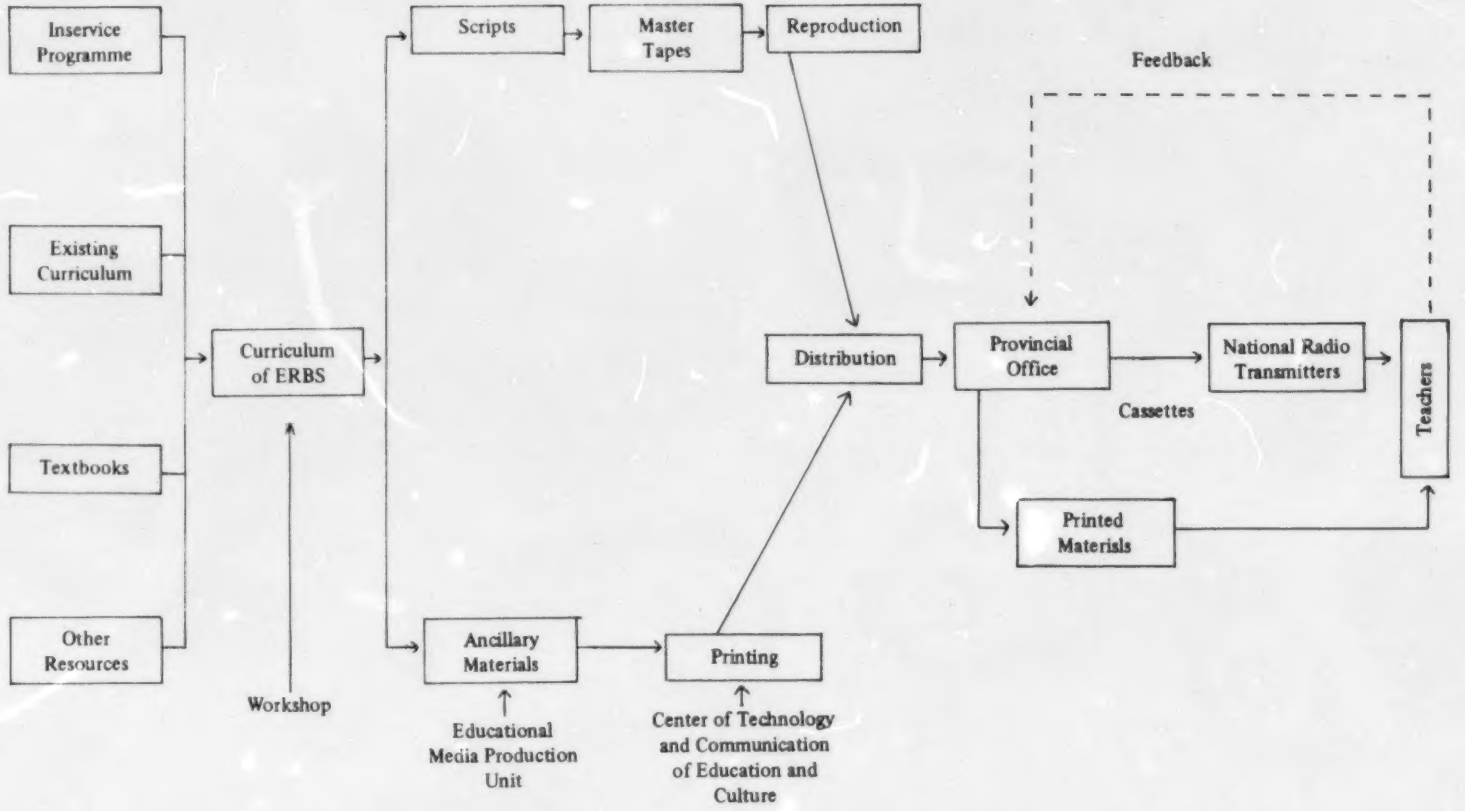

Figure I. The Flow of Activities

MALDIVES

The Republic of Maldives, is an archipelago of very small coral islands lying to the South West of Sri Lanka. It comprises 2,000 islands of which only 200 islands are inhabited with a total population of 1.5 million. Their natural division into groups of islands, is followed in the way they are politically divided into 19 atolls. Male', which is 2½ sq. miles is the capital and lies almost in the centre of all the atolls.

On each populated island there is at least one "Maktab" or a small traditional school which concentrates on the three R's and the reading of Quran. Under the Educational Project of the Educational Development Centre (E.D.C.), a community school is planned for each atoll. Some of these schools are already in operation. There are two secondary schools which have the London G.C.E. (0) level as their terminal examination. There is also a Science Education Centre, where the students take their G.C.E. "A" level. Since there are no colleges and universities in Maldives, the students go abroad on scholarships, for higher studies.

Teacher training was first undertaken by the Educational Development Centre in 1[illegible] Now two parallel training courses of one year, are conducted. One course is conducted in Dhivehi medium, for primary school teachers who will teach in the atoll schools. The other course is conducted in English medium for primary teachers who will teach in the English medium government schools. At present there are 98 trained primary school teachers. (89 in Dhivehi medium and 9 in English medium)

Distance learning

A project on distance learning is being planned by the Educational Development Centre. Although there has been no definite plan for multi-media distance learning until now, radio is already being used to give information for national development. This is done under the non-formal education programme of the Community Education Project. Fifteen-minute radio programmes, five days a week, broadcast information on Agriculture, Health, Fishing, History and Traditions and current events in the country. A monthly magazine is also produced to supplement these radio programmes.

Apart from these programmes, there is a programme on Basic Education and one for mothers and teachers of pre-school and primary school children.

Since the trained primary school teacher is an important resource person in the community, there is a great demand for him in all fields. To convene these teachers even for short term in-service refresher courses for their upgrading, is difficult and disruptive. But some are the beginners in the areas of teaching skills and content. Hence there is a felt need for distance learning for these teachers.

Distance learning materials on 'How should a teacher ask questions?'

"How should a teacher ask question?" is a self-learning module designed for in-service primary school teachers who have had one year of teacher training and one year of teaching experience. The material is especially designed for the Maldivian environment and will be distributed by the Educational Development Centre. The trained head teach-

ers, who are to provide student support services, will be given a short orientation course on the materials before distribution. The head teacher in each atoll will supervise and evaluate the learners in his atoll. There will be continuous and regular feedback from the head teachers to the writers at EDC. The material is self-paced, and after its completion by a majority of in-service teachers, EDC will conduct a small seminar with head teachers, learners and other educational personnel involved, to evaluate the material.

NEW ZEALAND

Setting: New Zealand lies in the Southwest Pacific and is a meeting place of European and Polynesian cultures. Its pakeha (European) culture is mainly British with substantial minority groups of Scandinavians, Dutch and Yugoslav settlers. The Maori population, about one in seven of New Zealand's three million inhabitants, were themselves immigrants several centuries before the British arrived two hundred years ago. They are related to the Polynesian peoples throughout the triangle of ocean islands that stretches between New Zealand, Easter Island and Hawaii. There is a continuing influx into New Zealand from other Polynesian countries, notably the Cook Islands and Niue (whose inhabitants have New Zealand citizenship), Western Samoa, Tokelau and Tonga.

New Zealand is a sparsely populated, mainly agricultural country dependent on exports of wool, meat, timber products and fruit. It has very limited mineral resources although hydroelectric power and natural gas are readily available. The climate is temperate, semi-tropical in the north but with cooler mountainous areas elsewhere.

Education: The pakeha settlers valued formal education as part of their imported culture and as opportunities which they wished to create. They therefore wished to recreate and extend the education they had known before. They respected the educational needs of those settlers who went beyond the towns to form more remote areas. In 1877 primary education was made compulsory. Now the age range of compulsory schooling is now 5-15 years. Primary and secondary education are free (except in private schools, a small and diminishing sector of the system). Post-secondary education at teacher's colleges, polytechnics and universities is heavily subsidised. Fees are charged, but are relatively low and commonly met by government scholarships. State teachers colleges offer preservice teacher education, several of them in association with a nearby university. There is concern that there be lifelong opportunity for everyone who seeks education wheresoever they live. There is especial concern that children, their teachers and other prospective students in remote places should not be disadvantaged. These are concerns which have favoured the development of a comprehensive set of distance learning institutions which together constitute an entire, counterpart, education system.

Distance Learning Institutions: For school children at all levels, the New Zealand Correspondence School (NZCS) provides education (and has done since 1922) for more than six thousand children, who live in remote areas, who are physically handicapped or are otherwise prevented from attending school. Pupils in secondary school with no a specialist teacher are enrolled at NZCS. The staff are trained teachers recruited from the schools, including a few whom deafness or other disabilities prevent from teaching face-to-face. They are expected to provide personal tuition for children and help write and

renew teaching materials by adapting their established skills to the distance learning mode with help from within NZCS. Although written materials are the main teaching resource, cassette tapes and regular radio broadcasts supplement them. Some video cassettes are now being used. Regional support services are limited but telephone contact is used whenever necessary. In addition to school-age children, another nine thousand adult learners, early school leavers who have resumed study, are enrolled.

The Advanced Studies for Teachers Unit (ASTU) provides in-service correspondence courses for a few untrained but experienced teachers seeking their initial qualification and for trained teachers working towards the NZ Department of Education qualification, the Diploma in Teaching. The ASTU was established within the NZCS in 1962 but has twice been relocated. It is soon to be re-established within a teachers college (Palmerston North near Massey University, the distance education university) to form the teachers college network in providing several levels of mid-career qualifications for teachers. It too relies mainly on correspondence material (including audio-cassettes) prepared by external contract writers in accordance with guidelines set by small course writing teams which include presentation specialists. Support services for students are available from local teachers colleges if students are close enough.

University distance education is provided by Massey University's Centre for University Extramural Studies (CUES). Courses towards seven undergraduate degrees and fifteen diplomas (most of them post-graduate) are offered. About 30 per cent of the 1981 roll of 7700 are teachers improving their qualifications, either adding papers to those from ASTU to complete the non-university Diploma in Teaching, or completing a B.Ed., another degree or a diploma. For teachers there are a post-graduate diplomas in Social Sciences, in Education, in Second Language Teaching, in Guidance and Counselling or in Educational Administration. The proportion of teachers has diminished (although the number has increased) as the range of distance education courses has extended to mid-career studies for nurses, businessmen, social workers, food technologists, police and others, including many hundreds of women seeking a second chance for study that they may have bypassed in earlier life. The main teaching is by correspondence, including audio-cassettes, but each course has a short on-campus or off-campus contact period when students meet academic staff. Regional support, especially in Education courses, is provided by Education Faculty off-campus tutors. Regional tutors are rare except that the Students Association own regional network provides advice and feedback and organizes study groups and sometimes recruits local tutors. Individual academic staff write distance education versions of the courses which they teach to internal students (and assess and examine them as they do for internal students). Few have previous experience of distance teaching (unless they were former distance education students themselves) and they must rely for advice on more experienced departmental colleagues or consultation services provided by CUES.

New Zealand's largest distance education institution is the Technical Correspondence Institute (NZTCI) with a current enrolment (1981) of 35,000 students. Most of these are seeking vocational certificates and only a few are teachers adding technical knowledge. Most work is by correspondence and cassette, the courses following the prescriptions of several external examining bodies for different professions. As many vocational teachers including Technical Correspondence Institute (TCI) staff come from outside teaching, it has a small unit concerned with training technical teachers.

The other distance learning institutions are much smaller and do not have teachers as their target clientele. The *Continuing Education Unit of Radio New Zealand* gives irregular series of radio broadcasts on themes of substantial public interest (Life over fifty, Cancer, Pacific culture). Booklets accompany such courses and subsequently cassettes of the broadcasts are made widely available and are distributed to public libraries. The *Workers Educational Association Trade Union Postal Education Services* offers non-credit courses to workers who wish to improve their education. Some of its advanced courses assist trade unionists in understanding economics, law (especially labour legislation) and public issues.

Review: It seems likely that distance learning will continue as a part of the lifelong educational opportunity for New Zealanders. In 1980, the Report was issued of a Working Party on Learning at a Distance, a group which surveyed existing provisions with a view to their improvement and further development. Its recommendations were a positive encouragement to the existing institutions to continue and extend their programmes.

PAKISTAN

The population of Pakistan in 1981 is around 85 million. (There are about 14 million children in the age range of 5 to 9 years. Out of these children, a little over seven million children (i.e. 50%) are enrolled in primary schools. The number of primary schools is around 60,000, middle schools around 6,500 and secondary schools around 3,500 in 1981. Around 300,000 teachers are engaged in teaching in schools, colleges, universities and other institutions of technical and tertiary education.) In spite of repeated efforts through various policies and plans for universalization of primary education since 1947 (the time of independence), Pakistan has been able to enrol only 50 per cent of its children in the primary schools. Out of these children, only 40 per cent complete their primary education (5 years duration) while the remainder drop out before attaining a reasonable level of schooling and lapse to illiteracy. The 1981 estimates of the literacy percentage is barely 25 per cent for the age groups ten years and above. The literacy percentage in rural areas and particularly for the female population is still around 5 per cent which is amongst the lowest rates of literacy for this group in the region.

These and other similar limiting factors led Pakistan to explore alternative methods and structures of education. Non-formal education through correspondence, radio, television and other innovative approaches was considered as a possible alternative to the gigantic problems of expanding formal educational facilities at the requested rate.

The Allama Iqbal Open University

The decision to establish the Allama Iqbal Open University (AIOU) as a distance learning institution was prompted by:

1. The need to ease the pressures on the formal educational establishments in Pakistan; and
2. An awareness of the potential of this alternative approach to education, in which a realtively small institution can serve in a cost-effective way, very large numbers of adult students, without their leaving homes or jobs.

The distinguishing features which set the AIOU apart from other institutions of higher education in Pakistan, are that it uses a multi-media system:

1. To provide education after the normal age of schooling;
2. To help people to integrate or alternate their occupational and educational activities in a meaningful way;
3. To provide education to those who, for one reason or another were/are not able to take advantage of formal educational facilities; and
4. To reduce social inequalities in education.

Teacher education programmes

The following are the major programmes offered in the field of teacher education:

1. Primary Teachers' Orientation Course (PTOC)
2. Primary Teachers' Certificate (PTC)
3. Certificate of Teaching (CT (Foundation: Social Studies: Urdu: Home Economics: Practical Workshop and Teaching Practice).
4. M.A. (Educational Planning and Management)
5. Post-graduate Diploma in English Language Teaching, (Part 1 and Part 2)
6. Intermediate and B.A. level courses on Education.

Out of the entire spectrum of the courses listed above, the PTOC is the largest programme offered by the University. By now about 65,000 primary level teachers have been oriented through this programme. The course has been revised at least three times during the last five years. The PTC is another course of the University meant for the untrained matriculate teachers teaching in Primary schools. About 3,000 teachers have received this training during the last two years. The CT is a new course offered by the University for middle-level, untrained teachers. About 200 students have been enrolled in this programme from the semester starting in October, 1981. MA Educational Planning and Management (EPM) is the highest programme offered by the University with eight courses including a research project. Around 500 key personnel comprising headmasters, district education officers, supervisors of primary schools and teacher educators of various levels are enrolled in this programme. It is planned to produce around 25 experts with an MA (EPM) degree every year starting from 1981. There is no system of pre-service education for the college lecturers. The University has started a post-graduate Diploma in English language Teaching for the lecturers of English from 1980. Presently around 200 college lecturers are enrolled in this Diploma course.

There are also Intermediate and BA level courses in education which play a considerably important role in providing the student the basic theoretical background and knowledge of education so as to make them appreciate the crucial role which education plays in the development of a society.

Course revision

The faculty of the Institute of Educational Research has recently started an on-going review of units programme under which it is planned to take up, study, revise and

improve the units in all the courses of teacher education programme one by one. The review committee formed at the Institute will complete the task with the help of the course coordinator, unit writers, subject experts, tutors and representatives of the students, etc.

Methods and Media

Following are the various methods and media adopted by the University in the distance teaching system:

1. Correspondence phase. The reading material in the form of books is sent to the students in a series of mailings according to a planned schedule. Supplementary reading materials and guidelines are also sent along with the correspondence texts.
2. Assignments. Students are required to complete assignment based on the text of their units and other relevant books and documents suggested by the University.
3. Tutorial services. Each student is assigned to a tutor who evaluates his assignments, awards marks and provides necessary guidance in connection with the completion of the task assigned to the student. Face-to-face meeting sessions are also organized with the tutors. In this way, the system has an in-built strategy of continuous evaluation of students.
4. Radio/television programmes. Materials sent to the students in the form of written units are supplemented by radio and television programmes which are prepared by the Faculty of the Institute and are recorded in collaboration with the staff of the Institute of Educational Technology of the University.
5. Study centres. In the case of PTC, PTOC and CT courses, the tutors spread throughout the country are available at the study centres during fixed hours. Students who have problems may seek guidance. Regional Offices of the University supervise the activities of these study centres.
6. Workshops. In the case of MA, EPM one-week practical workshop is held at the AIOU campus at the end of each course. During this workshop students from all over the country come to the capital and discuss their problems with the unit writers and, experts from the Ministry of Education, University Grants Commission, Planning Commission and other relevant organizations.

As the AIOU has adopted a distance teaching system, it assigns significant importance to the use of mass media. Radio and television programmes are prepared by the course coordinators in collaboration with the technical staff. The University, on an average, produces, develops and records about three hundred radio programmes and 75 television programmes pertaining to different courses in each semester. Pakistan Broadcasting Corporation (PBC) and Pakistan Television Corporation (PTVC) offer their services to the university at subsidised rates.

In the face of a challenging situation, the University has taken some initiative in the field of teacher education and is endeavouring to facilitate the advancement of educational targets in Pakistan.

PHILIPPINES

Background and setting

The Philippines regards distance learning as an alternative to the traditional ways of delivering education, not only to those in the formal system but to the out-of-school youths and adults. It helps realise the country's desire to maximize the contribution of education to imperative national needs. The steps taken to encourage distance learners may be characterized as follows:

1. Relaxing entry requirements, attendance or residence conditions, length of study periods or examination procedures;

2. Ensuring full use of modern multi-media instructions, including correspondence lessons, self-learning kits and other means of distance learning;

3. Facilitating past-time students to work as they see fit and at their own pace; and

4. Giving wider access to opportunities that might otherwise be available only to a privileged few.

Forms of distance learning on teacher education

Two areas of concern in teacher education in the Philippines are in the areas of pre-service education of surrogate kindergarten teachers and the inservice education of trained teachers. Kindergarten education has been identified with the rich who can afford the very high tuition rates.

In Region XI alone there are approximately 40,000 public and private school teachers. About 75 per cent of them are stationed in outlying distant communities far from university centers. With increasing cost of education the majority cannot avail of continuing eduation traditionally offered in existing centers of learning in colleges and universities.

These two areas of concern require innovative schemes to provide interventions which are described herein.

– Pre-service education for surrogate kindergarten teachers

The Self-Learning Integrated Modules for Mothers (SLIMM) was developed re-organising the importance and human potential of preschoolers.

The SLIMM is a self-learning module for mothers written in Ilocano (a Philippine dialect) and has been designed for mothers and for any individual who has a preschooler to teach. The module is for anyone who is interested to prepare a preschooler ready for grade one, can read and write elementary English, and is prepared to commit energy to teaching children and finishing the work requirements or the course.

So far these has been field testing of SLIMM among a sample of mothers from four barangays, that shows that the mothers who are SLIMM-users are effective in training their preschoolers to be ready for grade one and are comparable on the same criteria with mothers who were teacher-trained.

– Inservice education for trained teachers

(a) The Distance study system (DSS) was launched in 1976 for people in rural areas who have no access to schools, colleges and universities.

Three levels of incentive are given to students enrolled in the course through the DSS. Graduate credits are given to those enrolled in the first level graduate course, in-service credits for second-level, and certificates of participation for third-level school teachers, housewives, farmers, businessmen, students and others interested in the courses offered.

The DSS focuses on nutrition education and is being tried out in 13 pilot study study centers established in four regions. The clientele are elementary and secondary teachers but the plan is to eventually extend to other groups.

(b) The University-On-the Air (UM-AIR).

Realizing the need to extend education to teachers in remote areas, the University of Mindanao launched an innovative programme, which is a special project of the graduate school, called the University of Mindanao on the Air Programme or in short the UM Air. The aim of the programme is to enable teachers to earn a master's degree in education at minimum expense. It started in 1971 and is administered through the Graduate School and its Dean.

Facilities, resources and finance

The UM Air utilizes the radio stations owned and operated by the University of Mindanao Broadcasting Network (UMBN) with a special transmitter for educational broadcasts. Stations are located in Davao City, the two provinces of Davao and Cotabato City. Packaged library materials are distributed to the centers.

At present the programme is able to subsist without outside financial aid being able to support itself on the tuition fees of students alone. Tapes and lecture prepared over the years are being used again with minimum expense for revision of broadcasts and lectures that have become outmoded.

Principal activities:

– *Materials produced:* Following enrolment there is a day of orientation when all students come to the main campus to meet course personnel. Various requirements are explained:

- listening to broadcasts – 34 lessons of 30 minutes each . . . . . 17 hours;
- attendance in 17 forums of two hours each with forum leaders in various centres . . . . . 34 hours;
- two examinations of two hours each . . . . . 4 hours: a total of 55 hours.

Materials needed by students are also distributed during the orientation meeting. These include a broadcast schedule, the syllabus for the course, modules for the course, modules, and problems to be completed and guide questions to be answered in the student workbooks.

Before the students return to their stations they are given a guided tour of the university campus, to familiarize them both with its set-up and with the facilities that are available to them. Students then return to their respective areas, returning to the main campus for the mid-term and final examinations. To maintain standards a common

syllabus and examinations are used for students enrolled both in the UM main campus and the UM Air programme.

To date, the UM Air has already produced and stored 680 tapes of lectures in 20 different subjects included in the graduate school curriculum. Also on file are 20 mimeographed bound volumes each containing 34 lectures for broadcast.

Evaluation of the Programme

An independent evaluation committee has reported that it could detect no substantial difference between students enrolled on the air and in classes. In addition student feedback is used for continuous evaluation.

Outcomes of the Project

The acquisition of an M.A. degree through the UM Air – improves the socio-economic standing of the teachers not only in their own community but also in professional circules.

Postgraduate degree study makes possible for those teaching in isolated places.

- makes graduate study possible for those teaching in isolated places.
- opens professional opportunities that would otherwise be limited.
- creates a longer pool of professionally well qualified educators.

SRI LANKA

Geographical background

Sri Lanka which has had compulsory and free education from kindergarten to university since 1945 enjoys a high literacy rate of 87 per cent today. The participation rates developed areas of the country and therefore most of the facilities are also provided these. The urban areas in the west, centre and north, have relatively better access to and opportunities for programmes of development and related facilities, than those in the rural areas. Such disparity in opportunities is particularly evident in education.

Educational background

Sri Lanka which has had compulsory and free education from kindergarten to university since 1945 enjoys a high literacy rate of 87 per cent today. The participation rates are also satisfactory especially at the primary level (84%) although it tapers, as one would expect, at the tertiary level. Education today is mainly the responsibility of the State. There are only a very few private secondary schools and all universities and higher educational institutes are governed by the State. The medium of instruction is the mother tongue (Sinhara/Tamil) and English is taught as a second language, starting from grade III.

Today nearly 150,000 teachers serve in nearly 10,000 schools of the country. Of this number a vast majority have achieved at least G.C.E. 'O' and 'A' level graduates. Nearly 12,000 are B.A. graduates. Unfortunately a substantial proportion have had no pre-service training. There are many reasons including:

1. A shortage of teachers to serve the schools in the country;
2. Insufficient training facilities for all to be provided with pre- or in-service training; and
3. The continuing intake of teachers to schools without pre-service training.

At present there are nearly 30,000 untrained teachers manning the schools of the country. The majority of the untrained category of teachers serve the disadvantaged in the more remote and rural areas who are already educationally disadvantaged.

Design and development of distance education for in-service teachers in Sri Lanka

The immediate objective of the Ministry of Education in Sri Lanka is to clear the backlog of 30,000 untrained teachers in the country. The 1981 Reforms for Education in Sri Lanka propose, inter alia, that recruitment to the teaching profession will take place only after pre-service training for all categories of teachers ('O' & 'A' level and B.A. graduates).

The programme of training of teachers through distance education (locally referred to as 'correspondence education') is for both graduate and non-degree categories.

The course involves:

- Correspondence materials
- Assignments
- Project work
- face to face contact
- teaching practice.

The advantages of the correspondence course to teacher student are as follows:

1. The students will not be uprooted and transferred from his place of residence after the training.
2. The students do not have to sign a bond because the cost of training is not borne by the State.
3. It is less costly for the student.
4. The student can look after their families and attend to all their personal problems while studying.
5. The amount of teaching required for enrollment is reduced from 5 years to 2 years for the correspondence students.
6. More time is allowed for the student to complete his course work because he is learning while teaching in schools.

Training course for 'O' level graduate

The course for 'O' graduates commenced in 1972 with a total of nearly 2,000 students. Students are attached to the nearest teachers college. This course is composed of 10 subjects divided into 3 segments each to be completed in one year. The course material is written by experienced and qualified lectures from teachers colleges. Teaching

practice is conducted for 2 weeks during the third year of the course. Contact lessons of 10 days are conducted during school vacations at the teachers college to which they are attached. Students pay a nominal fee for the full course material. The expenses for the contact lessons i.e. board and lodging are borne by the Ministry of Education. All problems pertaining to the course are brought out at these contact sessions. Participation at them is very satisfactory. There are 20 such centres in the country.

The supervision of their teaching practice is also done by the teachers educators of the teachers college to which they are attached. This is in addition to the supervision by the Teachers College branch of the Ministry of Educarion. Evaluation of their work is conducted 3 times a year i.e. 9 times for the course. In addition an examination is conducted for them at the end of their 3 year period. The certificate is equivalent to the one issued to the internal students following a one-year full time course. The performance of the correspondence students has been found to be better in many respects than the internal students.

Correspondence course for B.A. graduates

The other correspondence course of two year duration is for B.A. graduates leading to a Diploma in Education Certificate. It too is designed also to clear the backlog of professionally unqualified, practising teachers, nearly 12,000 of them.

This course commenced in 1973 with 525 candidates. Three bodies handle the organization and supervision of the course. The External Agency of the University of Sri Lanka issues certificates and conducts examination. The Faculty of Education of the University of Sri Lanka provides any face-to-face lectures, conducts seminars and corrects the final examination scripts. Admission of students, organization of seminars and providing of finances are the responsibility of the Ministry of Education. The whole programme is coordinated by a senior lecturer from the University of Sri Lanka in an honorary capacity.

The course for the 1st year contains the four compulsory subjects. The material for the 1st three terms is mailed to the student at the beginning of each term. Week-end and vacation courses are conducted at the nearest Teachers College. At the initial stages of the programme, there was no regularity in the organization and conducting of seminars. However, since 1978, the Ministry of Education has regularised the conducting of these face to face, contact lessons. They were irregular because

1. There was a problem of payment to the lecturers;
2. The writing of tutorials was not made compulsory; and
3. Attendance at face-to-face sessions was not made compulsory. However there were many students who turned out for the seminars.

In their 2nd year three more subjects are added, all of which are tested at the end of the year. The final pass is based in the performance of both the examinations and performance at school practice during the last two terms. School practice takes place in the student teachers own school for two months under the supervision of a master teacher. There is further supervision by senior lecturers from the University and they make the final assessment of the school practice component. A pass at 'B' level in teaching as required for a student to obtain Merit or higher pass at the final examination. Before

that examination, the students must also submit a compulsory essay on a problem in education and no student will get a pass unless he has submitted his essay.

These two courses are further to be expanded to enable a larger number to follow the correspondence course from 1982. The Ministry of Education and the proposed 'open university' are to look into this aspect of clearing the backlog of untrained teachers in Sri Lanka. The present distance learning programmes will be absorbed into these two to provide a better training programme to a larger number at a reduced cost for the clientele.

THAILAND

Background information

The population of Thailand is approximately 48,000,000, the majority of whom are in the rural areas. This includes hilltribes located in the north and border dwellers in the east, north-east and the south of the country. Educating these peoples is, indeed, a monumental task in view of the lack of qualified teachers.

Design and development of distance learning

Several projects have been launched to upgrade the competencies of some 134,000 (as of June, 1977) unqualified teachers. Due to the inaccessibility of some areas, it has become inevitable to develop a distance learning approach. So far the three agencies involved are the Teacher Institute (Kurusapa), the Education Ministry's Teacher Training Department and the Sukhothai Thammathirat Open University. Another agency which is in process of planning a distance learning programme for training rural secondary school teachers is the Supervisory Unit, Department of General Education, Ministry of Education. It plans to utilize various media, such as radio, correspondence and programmed texts.

Modes and processes

There are three modes and processes in distance learning:

– The Teacher Institute Correspondence Course for In-service Teachers which started in 1969, was designed specifically for unqualified teachers by the Teacher Institute. The programme enables unqualified teachers to upgrade their credentials to the Certificate in Education (Cert. in Ed.) and the Secondary Grade Teacher Certificate (S.G.T.C.) levels. The subjects taught are Mathematics, Science, Social Studies, English, Thai and Pedagogy. Teachers can enrol in not more than three subjects in one term. It is a four-month distance learning course which has correspondence lessons at its heart. The distribution of the lessons by mail is done once a month. Course members are advised to do exercises and send them back to the Institte, to be corrected by its staff. As there is no group meeting, the course members must mail any questions they may have to the institute.

The staff of the correspondence course for in-service teachers is composed of resource persons from various sources. These experts are responsible for producing mate-

rials, correcting exercises and clarifying questions. The Institute is a teaching but not an examining body; its materials are instructural and remedial. To obtain certificates, course members take qualifying examinations set by the Education Ministry's Teacher Training Department.

– The Teacher Training Department's Radio Correspondence Programme is also designed to up-grade the qualifications of teachers. It uses correspondence supplemented by radio. Cassettes are also available for course members who miss radio broadcasts. Study materials are mailed to the course members who respond with assignments mailed back to the programme centre located in the In-service Teacher Training Division of the Teacher Training Department, for evaluation and recording.

The Radio Correspondence Programme has advantage over the Teacher Institute Correspondence course because Certificate in Education and Secondary Grade Teacher Certificate are directly awarded to the successful course members by the Teacher Training Department. This has resulted in a decreasing number of participants in the Teacher Institute's courses.

The Nationsl Develòpment Plan, Phase V, for 1982-1986, financed by the World Bank is now underway for the expansion of the Radio Correspondence Programme. The Teacher Training Department in collaboration with the Public Relations Department of the Office of the Prime Minister, has organized the Second Radio Network which is exclusively for educational and rural development purposes.

Radio transmission of thirty-minute lessons for up-grading both levels takes 540 hours of air-time, broadcast all the year round, twice a day. It covers six subjects: Pedagogy, Thai, English, Social Studies, Science and Mathematics. The last two subjects are telecast. So far more than 50 per cent of course members have passed the annual examinations, approximately 18,000 have received the Certificate in Education, 100,000 the Secondary Grade Teacher Certificate and 1,200,000 remain enrolled in the up-grading programme.

– Sukhothai Thammathirat Open University: The University's tenets are life-long education, improvement of the quality of the Thai citizenry, and expanding educational opportunities for those with secondary school diplomas. Its approach is correspondence, radio, television and other devices which enable participants to study independently. The university offers eight major subjects: Liberal Arts, Education, Management, Law, Economics, Hygiene, Home Economics, Agriculture and Co-operatives, with plans to increase the number of major subjects.

The present enrolment is 82,000 with a projected enrolment of 100,700 in 1982.

There are seventy-one local meeting centers, one in each province and three in Bangkok. The centers are located in teachers training colleges or local secondary schools. Once a month, course members meet at their local centres for tutorial purposes. Examinations are also conducted in the meeting centers.

CONCLUSIONS

These experiences of distance learning systems and materials of participating countries arise from an awareness of certain needs and problems in teacher education in the different geographical, socio-economic and cultural contexts of those countries.

Traditional approaches seem to have exhausted their contribution that can be made innovatively to the pre-service and in-service education of teachers. The techniques of instruction, the methods of testing and using distance learning materials have produced a wealth of ideas and innovations for teacher education. Many developing countries may draw on these to stimulate their efforts towards the attainment of their goals for national development.

These experiences of distance learning may help some countries in the region to explore and identify ways to make teacher education responsive to their particular circumstances and vision.

Chapter two

NATIONAL FOLLOW-UP ACTIVITIES

The national follow-up activities of participating countries were prepared by individuals but as a result of their participation in group work and plenary sessions. The group hoped that national activities to be undertaken in the participating countries would reflect the guidelines developed in the Technical Working Group Meeting, and be as specific as possible about their implementation. It was felt that some of the participant countries follow-up plans may have relevance for other APEID member countries.

A synopsis of possible activities is presented below under five headings which attempt to encompass the spectrum of activities that can be undertaken in connection with distance learning:

1. Training:
   - training key persons through seminars, small groups discussions, and orientation courses;
   - training material writers for teams involving subject-matter experts and distance educations;
   - training teams and individuals in the preparation of materials, their use, trial and renewal;
   - training local tutors in the effective handling of "contact" and "feed back" components of distance education;
   - training administrators, planners and policy-makers regarding the various aspects of the distance learning system as compared with traditional systems; and
   - training media personnel regarding their involvement in distance learning;
2. Production and preparation of Materials
   - development of instructional materials for distance learning on the basis of the guidelines on topics included in the teacher education courses for different levels of teachers;
   - improvement of the existing learning materials in the light of the guidelines developed during the meeting;
   - colleboration with universities, ministries and other national agencies to produce appropriate ancillary or supportive learning materials for distance learners;
   - translation of new and revised instructional materials into the local languages of participating countries; and
   - production of special modules for developing skills of vocational teachers.
3. Dissemination of Materials
   - dissemination of the guidelines developed in this meeting in respect of

organizational structure and systems and the processes for developing learning materials for distance education;

- dissemination of the exemplar materials;
- dissemination of evaluation instruments; and
- dissemination of research studies on distance learning systems,

4. Extension
   - extension of the distance learning materials to traditional teacher training institutions;
   - extension of innovative materials to persons outside the distance learning system; and
   - extension of new materials to others who may be interested in learning through non-conventional ways.
5. Research
   - experimental trials to demonstrate the efficacy of distance learning materials;
   - trials to analyse the applicability and wider use of materials;
   - comparason, through research, between the products of distance and internal systems of teacher education and between 'integrated' and 'separate' systems of distance learning;
   - studies of the social-cultural background, needs and aspirations of the distance learners;
   - studies to establish the efficacy of the "contact" programme for the distance learners;
   - studies to improve the communication systems and feedback between distance teachers and learners; and
   - studies to develop an effective and appropriate evaluation system for the distance learner as opposed to traditional external examination.

AUSTRALIA

1. The exemplar materials submitted will be subjected to further close scrutiny and the necessary steps to overcome the critical limitations indicated will hopefully be negotiated as soon as possible with Royal Melbourne Institutes of Technology's School of External Studies which holds the copyright for the materials.
2. Further examples of materials could be developed by suitably experienced and expert people in order to provide a number of units or series of units suitable for use in the training of teachers. Such materials could then be made available to people within the region who are interested and involved in distance learning programmes. The training of tutors and field supervisors as well as writers could be given close attention in order to ensure that such training of staff involved in distance learning leads to consistent improvements in programmes offered.

To date training in methods and techniques of distance learning has not attracted an appropriate degree of attention in teacher training institutions.

3. It is to be hoped that the commitment to a communication satellite system will provide distance learners in Australia with a significantly increased range of options for undertaking learning programmes. It is to be hoped that the training of teachers in the techniques and methods of distance education will take account of this development and will reflect the expanded possibilities available in distance learning.
4. Consideration can be given to a training centre for distance learning methods and techniques being established at an Australian institution which has strong involvement in external studies courses and is firmly committed to the distance mode both in the short and long term. It might be possible for such a training centre to offer programmes to personnel involved at various levels within distance learning contexts, including those involved largely in the administration of distance courses, writers, tutors, field supervisors, etc. The programmes developed could well be offered to people from throughout the region on a basis to be negotiated to suit particular needs. It may well be more effective to offer such programmes on a non-formal basis thus ensuring greater flexibility in order to meet expressed needs of likely participants.

   It would seem appropriate that such programmes be offered by a variety of modes including of course by distance learning techniques and methods. It goes without saying that such programmes especially those offered at a distance, must be of the highest possible quality in order to provide an appropriate model to those undertaking them.
5. It is to be hoped that Australian participation in future programmes on distance learning will again be possible in order to maintain existing contacts and the sharing of ideas and developments and to facilitate the establishment of new contacts with people involved in distance learning in the region.
6. As a result of this technical working group meeting further opportunities for sharing resources for use in distance learning have been created.

   Continuing communication between participants will greatly assist in supplementing the sharing of resources which occurs at more formal and official levels.

INDIA

The following activities will be undertaken in order to make distance learning an appropriate alternative strategy at various levels of teacher education in the country;

1. The distance learning materials currently in use for the in-service teachers of Summer School-Cum-Correspondence Course are written in the formal style of text-books and, hence, do not seem to be appropriate for stimulating learning at a distance. Therefore, a series of workshops at the national and regional level will be held on the principles of producing distance learning materials.

2. Some University departments of education which are conducting teacher education programmes through correspondence are largely using textbook materials of the traditional type. The National Council of Educational Research and Training, New Delhi, being an apex institution so far as teacher education is concerned, is in a good position to organise orientation courses for University staff, followed by workshops where distance learning materials, will, in the light of the guidelines developed at this meeting, be actually prepared. This will go a long way in helping Universities move away from their traditional teaching/learning situation to a more appropriate one for distance learners.
3. The writers of distance learning materials need to work in collaboration with experts of educational technology. Since the NCERT and the State Departments of Education have set-up 'educational technology cells', efforts will be made, on a continuing basis, to ensure the involvement of educational technology experts.
4. Examplar materials produced for distance learners will be disseminated on a non-profit basis to interested universities, boards of secondary education, state institutes of education and other institutions to create a favourable climate for distance education in the country.
5. Present institutional facilities may be further for distance learning developed in view of the larger responsibilities which are developing upon them.
6. Some teacher education colleges may be encouraged to experiment with distance learning materials produced in the workshop.
7. The NCERT may conduct a few studies to know more about the distance learner, his circumstances needs and aspirations, and disseminate the findings of such studies to teachers, administrators and planners of distance learning systems in the country.
8. Summer School-Cum-Correspondence Courses have provision for face contact for instruction during the summer vacation. A study may be conducted to establish the efficacy of such contact programmes. Distance learning with or without contact may be explored through research.
9. Some Universities and Boards are using the radio for teaching learning at a distance, but systematic feedback regarding its utilisation by the learners is not available. The feedback could help better integration of the audio channel with the printed material.
10. It is found that, especially at some lower levels of teacher education but there are withdrawals from distance learning courses. The reasons for withdrawal and the comparative assessment of acceptability of the distance learning systems by prospective employer may also be studied in India.

INDONESIA

The minimum requirement for a Junior High School teacher in Indonesia is a Diploma II (D-II) certificate which is a two-year teacher training after the Senior High

School. At present there are many Junior High School teachers with a Diploma I(D I) certificate which is a one-year teachers training after the Senior High School.

The Junior High School teachers who only have a D I Certificate can attend the D II Programme by Distance Learning without leaving their jobs as teachers. The D II Programme by Distance Learning is offered by the Institute of Teachers Training and Education working together with the Regional Office of the Ministry of Education and Culture, Central Java.

The steps that have been undertaken in developing the D II Programme by Distance Learning are:

1. Meeting of the decision makers with a view of making a joint decision on the establishment of a D II Programme by Distance Learning.
2. Workshop on the establishment of the organisation and management of the D II Programme by Distance Learning.
3. Workshop on the development of the curriculum of the D II Programme by Distance Learning.

Therefore, the following plan of action is envisaged.

A workshop on the writing of the modules and scripts for the cassette programmes which will cover 13 subject matters consisting of six major subject matter studies, two minor subject matter studies, two basic general science studies, two basic educational studies, and one study on learning and teaching processes.

The writing of the modules and the other media programmes will follow the guidelines of developing instructional materials for distance learning produced by this Technical Working Group Meeting.

Each subject matter will be written by a team of instructors, so that the whole material will be finished by the end of January 1982. The D II Programme by Distance Learning will start at the beginning of February 1982.

MALDIVES

1. The exemplar material will be translated into dhivehi (local language).
2. The head teachers will be shown how to use the material and how to supervise and guide the teachers.
3. Materials will be distributed in the Dhivehi translation to atoll teachers, and in the English version to the English-medium teachers.
4. Progress and evaluation reports on teachers will be sent to Educational Development Centre regularly.
5. Evaluation of and suggested inprovements for the matenal by the teachers and head teachers will be sent to EDC.
6. After a majority of teacher have finished the matenals a seminar will be organised for other users, head teachers and other educational personnel involved to evaluate and further develop the material.

7. Areas of stress in teaching will be identified to initiate what other distance learning materials should be produced to meet the demands of the in-service teachers.
8. An overall plan will be formulated for distance learning for in-service primary school teachers.

NEW ZEALAND

The comments on the exemplar will be transmitted to its authors and to the Resources Officer at the Universities Centre for Extramural Studies (who is the consultant in the development of course materials) so that future annual revisions can take account of the suggestions. The guidelines will be circulated to distance educators in the various distance learning institutions.

Two New Zealand distance learning institutions are APEID Associated Centres. New Zealand is currently considering offering to host a regional or sub-regional Technical Working Group during the third APEID cycle of activities 1982-86. It expects to provide regular 'attachments' to its distance learning institutions for educators from Asia and the Pacific.

At the national level, groups from the major distance learning institutions already meet together at irregular intervals. They are collaborating in research on 'readability' of distance learning materials. In the near future, they will meet to discuss telephone teaching in distance education and other innovations.

New Zealand has several members of an Australian, New Zealand and South Pacific association of distance educators. The association is seeking to establish relationship with a similar association proposed for Asian distance educators.

PAKISTAN

As a result of the Technical Working Group meeting the following activities are intended:

1. Revision and improvement of all the courses in teacher education being offered by the Allama Iqbal Open University in the light of the recommendations made by the group for distance learning materials.
2. At present the University is offering a course for the orientation of primary school teachers. The same type of courses will be offered for different level ie. middle school level and high school levels.
3. Collaboration with Provincial Governments and other government departments will be increased substantially so that efforts are not duplicated.
4. Strengthening institutional research.
5. Distribution of TWG Meeting Report to all Departments of the University leading to discussions of the recommendations in the various academic and

administrative bodies of the University. Distribution of recommendations and checklists to all staff members.

6. Workshops to be organized for the orientation of AIOU staff members in the light of guidelines of the workshop.
7. Consideration of use of some of the examplar materials such as the material on tutoring within Allama Iqbal Open University.
8. Bringing the recommendations to the notice of the Curriculum Wing, National and Provincial Textbook Boards, Provincial Extension Colleges, etc.
9. Preparation of further model Materials by the Pakistani participants of the workshop which it hopes to have printed under the sponsorship of APEID for circulation to member countries and to personnel working in the development of distance learning materials in the Allama Iqbal Open University.
10. Research to evaluate some of the material, particularly developed for M A Educational Planning and Management course.
11. Development and distribution in ACEID of research designs (most probably experimental) for comparing the product of distance learning systems with the product of traditional formal teacher education.

PHILIPPINES

The Philippines intends the following activities:

1. Seminars and national workshop to disseminate the outcomes of the Working Group meeting;
2. Training programmes for personnel in distance learning;
3. Workshops to improve existing materials in accordance with guidelines developed in the Technical Working Group; and
4. Establishing linkages among the public and private agencies concerned with distance education.

SRI LANKA

The national follow up activities in distance education that would be undertaken would be as follows:

1. Extended provision of the correspondence-type distance learning materials already in use in the country;
2. Improvement or the quality and quantity of face-to-face sessions of distance learning;
3. Improve teacher access (e.g. using mobile libraries) to relevant reading materials for distance learners;

4. National workshops to improve the quality of the course writers in distance learning in accordance with the guidelines developed in the Technical Working Group Meeting; and
5. Measures to utilize Radio and T.V. for distance learning will be developed further.

THAILAND

1. A Survey of the present effectiveness of agencies concerned with distance learning materials, and their preparation, use and renewal will be conducted. On the basis of the findings of the survey report, discussions will be held with the responsible personnel regarding the development of distance learning programme and materials.
2. Guidelines, exemplar materials and evaluation, instruments developed at this technical group meeting will be presented to the distance learning authorities to assist them in the development and extension of programmes and materials.
3. A national workshop of a similar nature to the Technical Working Group will be organised in consultation with the principal agencies.
4. Quality materials on distance teaching will be developed, and existing materials will be revised on the basis of feedback from trial procedures.

Chapter three

SUGGESTIONS ON DISTANCE LEARNING

The participants look forv .rd to continuing the exchange of ideas and materials which they shared during the meeting. They consider that such exchanges among distance educators in Asia and the Pacific, especially those concerned with teacher education, would give them extra impetus and effectiveness in their work. They suggest that steps should be taken to give distance educators easier access to:

- regional training opportunities;
- exemplars of distance learning materials produced within the region; and
- a specialist association for distance educators.

– **Training:** There is at present no distance learning institution in the Region which provides training opportunities on a regular basis for its own and other distance educators in ways that would suit the needs of the Region. Where distance education training is well established – and perhaps, as in one or two Australian institutions where it is offered by distance learning means it has only its national target clientele in mind. The Technical Working Group participants would like APEID to encourage a teaching institution – experienced in distance learning and in staff training of distance educators – to develop the resources and manpower required to adapt and offer Regionwide its training programmes, whether by attendance or at a distance or by a combination of both.

Some opportunities to observe other distance learning systems at work already exist. There are 'attachments' to enable individuals to spend time at other institutions. The participants would like to see more of these available for teacher education through distance learning.

To support training at the home-base of the distance learning system, the participants consider that mobile teams have a significant role. This hope that member countries experienced in distance learning will provide teams to assist particular distance learning ventures especially when they are new.

However the main responsibility for training remains with the distance learning system itself. It should have the capacity not only to use the skills acquired abroad but to disseminate them for the benefit of colleagues in distance education; it should be capable of adapting the imported skills of mobile teams; it should establish its own programme within which these inputs and its own can be integrated and extended.

– **Materials:** Materials from other programmes can be very useful to distance educators to compare with their own approaches and gain benefit from past experience when new courses are being developed. However the circulation of materials among systems needs to be selective if there is not to be waste. The participants of the Technical Working Group Meeting therefore suggest that:

- distance learning organisations circulate lists of courses and information leaflets and pamphlets to enable other institutions to request materials of particular interest;

- APEID invite distance learning organizations to deposit sets of materials at a designated centre (e.g. REMRES) for consultation.

The participants urge that the centre which acts as a deposit for distance learning materials should undertake other functions in relation to those materials, e.g.:

- publishing a Newsletter that reports acquisitions and information about proposed developments and training opportunities.
- acting as a clearing house for requests for information about distance learning, consultants, systems with particular kinds of distance learning experience, etc.
- research into distance learning, in teacher education and more widely, in Asia and the Pacific.

– **Association for distance educators:** The participants urge those APEID Associated Centres which belong to regional professional associations of distance educators and teacher educators to ensure that the opportunities and benefits of membership flow on to other distance educators in new systems – some of which may be only temporary – at their early stages of development.

ANNEX I

AGENDA

1. Consideration of agenda and the provisional schedule of work.
2. Individual study of distance learning materials.
3. Consideration and first revision of distance learning materials.
4. Preliminary discussion on development of guidelines on preparation, selection, use and renewal of distance learning materials.
5. Actual preparation of guidelines.
6. Second revision of distance learning materials.
7. Preparation of follow-up activities.
8. Consideration and adoption of the report.

ANNEX II

LIST OF PARTICIPANTS

Australia	Mr. Trevor Matthews, Senior Lecturer State College Hawthorn Hawthorn Victoria 3122
India	Dr. G.B. Kanungo Principal Regional College of Education Bhubaneshwar
Indonesia	Mr. Slamet Sudarman Head Sub-Centre for Education Media Production Centre of Communication Technology for Education and Culture c/o IKIP Semarang Jalan Kelud Utara III Semarang – Indonesia
Maldives	Mrs. Fowziya Moosa, Teacher Educator, Educational Development Centre Male
New Zealand	Professor Donald Bewley Director of Extramural Studies Massey University Palmerston North.
Pakistan	Dr. Shaukat Ali Siddiqi Director Institute of Education and Research Cell, Allama Iqbal Open University, Islamabad.
Philippines	Dr. Paquita D. Gavino Dean Teachers College University of Mindanao, Davao City, Mindanao
Sri Lanka	Mr. S.B. Ekanayake Principal Teacher's College Hingurakgoda

Thailand	Mr. Kamol Thitakamol Chief, Supervisory Unit, Department of General Education, Ministry of Education Bangkok

Observers

Pakistan	Mrs. Razia Abbas Assistant Professor Institute of Education and Research Cell Allama Iqbal Open University Islamabad
–	Dr. Maqsood Alam Bukhari, Assistant Professor, Institute of Education and Research Cell Allama Iqbal Open University Islamabad
–	Mrs. Nadira Khan, Assistant Professor, Allama Iqbal Open University Islamabad.

Unesco Regional Office for Education in Asia and the Pacific

Dr. H.K. Paik
Specialist in New Methods in Teacher Education (ACEID)
Unesco, Bangkok

ANNEX III

LIST OF DOCUMENTS

Working Documents

ROFAP – 81/APEID-TWG. DLM/INF.1	General Information Paper
ROEAP-81/APEID-TWG.DLM/INF.2	List of participants
ROEAP-81/APEID-TWG.DLM/1	Agenda
ROEAP-81/APEID-TWG.DLM/2	Annotated Agenda
ROEAP-81/APEID-TWG.DLM/3	Provisional Schedule of Work
ROEAP-81/APEID-TWG.DLM/4	Tutoring at distance, by Mr. Trevor Matthews
ROEAP-81/APEID-TWG.DLM/5	Education of Disadvantaged groups: Education of girls and women in India, by Dr. G.B. Kanungo.
ROEAP-81/APEID-TWG.DLM/6	How to teach meaning of incomplete sentences of Indonesian language, by Mr. Slamet Sudarman
ROEAP-81/APEID-TWG.DLM/7	How should teacher ask questions by Mrs. Fowziya Y. Moosa.
ROEAP-81/APEID.TWG-DLM/8	Study guide on human development, by Brian Shaw and Kathy Broadley, presented by Professor Donald Bewley.
ROEAP-81/APEID-TWG.DLM/9	How should teacher plan research by Dr. M.A. Bukhari.
ROEAP-81/APEID-TWG.DLM/10	The self-learning integrated modules for mothers to increase their capabilities in training their preschoolers, by Mrs. Paquita D. Gavino.
ROEAP-81/APEID-TWG.DLM/11	Group dynamic in educational administration by Mrs. Paquita D. Gavino.
ROEAP-81/APEID-TWG.DLM/12	Teaching of psychology through distance education, by Mr. S.B. Ekanayake.

ROEAP-81/APEID-TWG.DLM/13	Education management in the Thai Society – Welfare Education – Distance teaching through television, by Mr. Kamol Thitakamol.
ROEAP-81/APEID-TWG.DLM/14	System orientation – Distance learning programmed text tried out by Supervisory Unit, Department of General Education, Ministry of Education, Thailand.

ANNEX IV

ADDRESS BY MR. MUHAMMAD ALI KHAN, FEDERAL MINISTER OF EDUCATION, GOVERNMENT OF PAKISTAN, ISLAMABAD

Mr. Vice-Chancellor, distinguished delegates, ladies and gentlemen

I consider it a privilege to have been invited to the opening session of this meeting of the technical group constituted by Unesco for promoting pre-service and in-service teacher education programmes through the distance teaching techniques.

I think the ACEID authorities for having selected Pakistan as the venue for this workshop which is being organised at the regional level. I also welcome the distinguished participants from Australia, India, Indonesia, Maldives, New Zealand, Philippines, Sri Lanka and Thailand who are here to attend this meeting. I wish them a happy and pleasant stay in Islamabad. Their participation should go a long way in achieving the objectives for which this workshop is being organised.

Ladies and gentlemen, the last two decades have witnessed a multiplication of problems for the Third World countries in the field of education. The reasons are more or less common to them all. Foremost among them is the rapidly growing population which neutralises our gains. An increasing number of children besides desire to enrol at schools but it is not possible to provide all of them the desired facilities. Attitudes of people towards education too have undergone a change because of rapid scientific and technological developments which are fast reaching the doorsteps of people even in the remote areas of their countries. They demand education and quality education in the shortest possible time. Economic constraints on the other hand are proving a stumbling block in the expansion of educational facilities. The only alternative seems that masses should be provided education through reliance on the non-formal system of education.

Pakistan too presently faces the critical challenge of the rising aspirations of the people and its limited financial resources. In spite of the best efforts and channelling of huge resources for education, more than 45 per cent of our children in the primary age-group are still out of school while the rate of literacy is estimated to be around 25 per cent this year. Coupled with heavy drop-out in the primary school, the problem has become all the more acute for those who share educational responsibilities at any level of our system.

In view of this situation, we in Pakistan had to look for alternative approaches and methods of education. The Allama Iqbal Open University was established in 1974 with the specific goal of providing education to the masses. It is presently making all possible efforts through its correspondence packages, television, radio and other mass media for the effective implementation of its distance learning programmes for various categories of clientele such as housewives, farmers, factory workers and those who cannot continue their education through the formal system.

The in-service education of teachers also forms part of the Allama Iqbal Open University programmes. So far this facility has been offered to nearly 50,000 primary level teachers working in the far-flung areas of the country. It is also a matter of satisfaction that the University is now extending its role in the training of untrained teachers

serving at the primary and middle stages. The University has also been entrusted with the responsibility of training key educational planners working in the fields of planning and management.

The University has certainly gained some experience in the field of organizing teacher education programmes through distance learning techniques during the last five years. We are, however, keen to share our experiences with other countries of the region. I am thankful to the Unesco authorities for providing us this opportunity to evaluate and assess our efforts and plan a more viable course of action for the future.

Pre-service and in-service teacher education programmes through distance teaching should from the core of any developmental effort in education. The ACEID presently has provided us an opportunity to produce suitable learning materials for the students with whom the teachers cannot immediately communicate because they are not physically present. A good package of distance learning materials, in my view, gives direction, supplements, illustrates, provides for review, stimulates interest and encourages self-evaluation. I am sure that you will come up with practical guidelines to produce such materials for promoting pre-service and in-service teacher education and to improve the strategies and techniques of distance teaching systems for solving the educational problems confronted by our countries.

I once again welcome you all to Pakistan and declare the meeting of the technical working group open!

LONG LIVE PAKISTAN!

APEID PUBLICATIONS RELATED TO TEACHER EDUCATION

1. *Exploring new directions in teacher education: re-orienting teacher education for rural development (Teacher Education 2) 1977*
2. *Preparing teachers for education in rural development - a handbook, 1977*
3. *Continuing education for teacher educators - advanced-level workshops, 1978*
4. *Continuing education for teacher educators: handbook of suggestions for organizing advanced-level workshops, 1978*
5. *Developing instructional modules for teacher education: a handbook, 1978*
6. *Developing instructional modules for teacher education: selected exemplar modules, 1978*
7. *Continuing education for teacher educators: identified needs and plans for national workshops, 1979*
8. *Policy studies in Asia - the training of educational personnel: India, Nepal, Pakistan, Philippines, Thailand, 1979*
9. *Teacher education: directions of change, 1979*
10. *Universalizing education: selected innovative experiences - New techniques for preparing educational personnel, 1979*
11. *Universalizing education: strategies for development and use of instructional materials, 1979*
12. *Designing instructional materials for general education and teacher training: a portfolio of experiences in Asia and Oceania, 1980*
13. *New personnel profiles in relation to changes in society and educational systems, 1980*
14. *In-service teacher education: developing innovatory strategies and instructional materials; report, 1980*
15. *Preparing educational personnel: Training methodologies based on locally available learning resources, 1980*
16. *Social change and new profiles of educational personnel, 1981*

The Asian Programme of Educational Innovation for Development (APEID) has as its primary goal to contribute to the building of national capabilities for undertaking educational innovations linked to the problems of national development, thereby improving the quality of life of the people in the Member States.

All projects and activities within the framework of APEID are designed, developed and implemented co-operatively by the participating Member States through over one hundred national centres which they have associated for this purpose with APEID.

The 21 countries in Asia and the Pacific participating in APEID are: Afghanistan, Australia, Bangladesh, China, India, Indonesia, Iran, Japan, Lao People's Democratic Republic, Malaysia, Maldives, Nepal, New Zealand, Pakistan, Papua New Guinea, Philippines, Republic of Korea, Singapore, Socialist Republic of Viet Nam, Sri Lanka and Thailand.

Each country has set up a National Development Group (NDG) to identify and support educational innovations for development within the country and facilitate exchange between countries.

The Asian Centre of Educational Innovation for Development (ACEID), an integral part of the Unesco Regional Office for Education in Asia and the Pacific in Bangkok, co-ordinates the activities under APEID and assists the Associated Centres (AC) in carrying them out.

The eight programme areas under which the APEID activities are organized during the third cycle (1982-1986) are:

1. Universalization of education: access to education at first level by both formal and non-formal means;
2. Education for promotion of scientific and technological competence and creativity;
3. Education and work;
4. Education and rural development;
5. Education and urban development;
6. Educational technology with stress on mass media and low-cost instructional materials;
7. Professional support services and training of educational personnel;
8. Co-operative studies, reflections and research related to educational development and future orientations.